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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/052,230	01/17/2002	Michael D. Vrbanc	WEYE118587/23109A	2936

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PATENT DEPARTMENT CH2J29  
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EXAMINER

CHIN, PETER

ART UNIT	PAPER NUMBER
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1731

6

DATE MAILED: 05/29/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

10/052,230

Applicant(s)

VRBANAC ET AL.

Examiner

Peter Chin

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-57 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-57 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 5.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: .

### DETAILED ACTION

1. Claims 1,2,8-10,26,27,35-37,46,47, and 55 are rejected under 35 U.S.C. 102(a, b, e) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Brucato (4,609,432), Pruszynski (5,942,087) or Greenwood (6,238,520).

Brucato shows the claimed mixture of cationic polymer and raw ungelatinized starch particle added to an aqueous paper making furnish. The claims are anticipated or at the least obvious over Brucato.

Pruszynski discloses the addition of pre-mixed granular starch and cationic polymer flocculant. The examples use a polyquaternary polymer flocculant. One example, a comparative example outside the invention shows the use of a mixture of a cationic polymer and granular starch. The present claims read on and are anticipated by, or at the least, obvious over the comparative example.

Greenwood shows the mixture of cationic polymer and ungelatinized starch granules added to the paper making furnish, see, column 6, lines 37-57. Anionic microparticles are also used, however, the present claims are open to the inclusion of anionic microparticulate matter, both inorganic and polymeric are contemplated. The use anionic or non-ionic coagulant or retention aids are disclosed in column 11. Thus, the claims are anticipated by, or at the least, obvious over Greenwood.

2. Claims 3,4,11,28, and 48 rejected under 35 U.S.C. 102(a) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Pruszynski (5,942,087).

The claims are rejected as above.

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3. Claim 3-7, 11-25, 28-34, 38-45, and 48-54 are rejected under 35 U.S.C. 102(e) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Greenwood (6,238,520)

The Claims are rejected as above. Note that polyquaternary amine, polydiallyldimethyl ammonium chloride copolymer is disclosed in column 5 and in polymers A and B, column 13, of the examples.

4. Claims 56 and 57 are rejected under 35 U.S.C. 103(a) as being unpatentable over Greenwood (6,238,520) and Casey.

Casey teaches that the cationic amine or quaternary ammonium group must be used at neutral to alkaline pH in order to maintain the positive charge on the group. Thus, it would have been an obvious expedient to adjust the pH to a value such as claimed to ensure the positive charge and to maintain adequate dispersal of the starch granules in Greenwood.

5. Claims 3-7, 11-25, 28-34, 38-45, and 48-54 are rejected under 35 U.S.C. 103(a) as being unpatentable over Brucato (4,609,432).

It would have been obvious to employ the claimed polyquaternary amine since it is a commercially available cationic polymer used in the art as admitted to on page 3 of the instant specification.

6. Claims 56 and 57 are rejected under 35 U.S.C. 103(a) as being unpatentable over Brucato (4,609,432) in view of Casey.

Casey is applied as above.

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Peter Chin whose telephone number is (703) 308-2046. The examiner can normally be reached on Monday through Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Steven Griffin can be reached on (703) 308-1164. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 305-7718 for regular communications and (703) 305-3599 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0651.

A handwritten signature in black ink, appearing to read 'Peter Chin', with a stylized, sweeping underline.

Peter Chin  
Primary Examiner  
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